

Mumbai University

Question Paper

**[CBSGS – 60:40 PATTERN]
(OCTOBER – 2014)**

PAPER - I

INTERNET

TECHNOLOGIES

Time: 2 ½ Hours

Total Marks: 60

- N.B.:** (1) All Questions are Compulsory.
(2) Make Suitable Assumptions Wherever Necessary And State The Assumptions Made.
(3) Answer To The Same Question Must Be Written Together.
(4) Number To The Right Indicates Marks.
(5) Draw Neat Labeled Diagrams Wherever Necessary.
(6) Use of Non – Programmable Calculator is allowed.

Q.1 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain any two modules of IPv4 Package. (5)
(B) Explain the Transition Strategies from IPv4 to IPv6. (5)
(C) Describe the functions of the Transport Layer of the OSI Model. (5)
(D) Explain the following fields of an IP Datagram: HLEN, Total Length, Identification, Flags, Time to live. (5)

Q.2 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain the Cache Control Module and the cache table in the ARP Package. (5)
(B) What is purpose of ICMP? Explain the redirection message in ICMPv4. (5)
(C) What are the three phases that a mobile host should go through to communicate with the remote host? (5)
(D) Explain the timers used in Routing Information Protocol. (5)

Q.3 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain the format of the header in User Datagram Protocol. (5)
(B) Explain the Client States in Transmission Control Protocol. (5)
(C) Explain the concept of Silly Window Syndrome in Transmission Control Protocol. (5)
(D) Explain the Three-Way Handshake used for Connection establishment in Transmission. (5)

Q.4 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Explain the features of Stream Control Transmission Protocol. (5)
(B) Explain the DHCP Client Transition diagram. (5)
(C) Explain the association establishment in Stream Control Transmission Protocol. (5)
(D) What are the types of records used in Domain Name System? (5)

Q.5 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) Write a note on “Network Virtual Terminal in Telnet”. (5)
(B) What is File Transfer Protocol? Explain the connections used in File Transfer Protocol. (5)
(C) What are the types of messages in Trivial File Transfer Protocol? (5)
(D) What are Cookies? How are they used in HTTP? (5)

Q.6 ATTEMPT ANY TWO QUESTIONS: (10 MARKS)

- (A) What are the three phases for a mail transfer in Simple Mail Transfer Protocol? (5)
(B) What are the different kinds of headers available in MIME? (5)
(C) What is Quality of Service? Explain its characteristics. (5)
(D) Write a note on “Resource Reservation Protocol”. (5)